

The School District of Philadelphia
Germantown High School
Promise Academy Lesson Plan

Week of:	10/17/11	Week 7			
Name:	Brian Rost				
Class:	Algebra 1	1 st , 11 th			
	Monday	Tuesday	Wednesday	Thursday	Friday
Notes/Concerns:	
Objective (Must be measurable) (Purpose)- The purpose of the lesson and why it is important for the students to learn. Objective(s) should be at the mastery level and aligned with Eligible Content. <i>Does my objective tell the “what” and “why” and is it at the mastery level? Did I utilize Eligible Content?</i> Reminder: Clearly communicate and Introduce the Objectives to Students.	• SW understands the topics necessary to achieve an 80% or better mastery on the chapter test.	• SWBA to achieve an 80% or better mastery on the chapter 2 test.	• SWBA to use the Properties of Equality (Addition & Subtraction) to solve equations for the unknown variable.	• SWBA to use the Properties of Equality (Multiplication & Division) to solve equations for the unknown variable. • SWBA to divide fractions using the reciprocal and multiplication. Keep/Change/Switch	• SWBA to solve words problems by identifying the key terms, writing equations and solving for the unknown variable.
Preview the Lesson (DO NOW/Jump Start) Anticipatory Set (Focus)- A short activity or prompt that focuses the students’ attention before the actual lesson begins.	Simplify $\frac{1}{3}x + \frac{x}{4}$	Take out pencils and erasers; put all notes away.	• Draw an 8, retrace your 8 backwards. Now draw the 8 as your retrace. • Retracing our steps is an important concept in solve equations.	• If Mr. Rost has \$11 more than Eric & Eric has \$x. The total number of dollars between them is 51, how much does Eric have alone? • Recall we retraced our steps with addition and subtraction, now we will do the same for multiplication and division.	• Translate the statement Five less than a number is greater than a seven.
Standards/Eligible Content (Refer to PST/CTE Guidelines)	• Represent Numbers in Equivalent Forms 2.1.8.B, • Number Theory 2.1.8.E • Concepts & Applications of Operations 2.1.8.F • Computation & Estimation 2.2.A1.C		• Numbers, # Systems & Relationships 2.1.A • Computation & Estimation 2.2.A • 2.8.A1.B Algebra Manipulation • Algebra Functions 2.8.A1.D		

	Mathematical Communication 2.5.8.B.		Algebra Modeling 2.8.A1.		
(Direct Instruction/Explicit Teaching) The teacher will explicitly teach the vocabulary, skills, and concepts that are necessary for the students to meet the objective. Did I include explicit teaching steps for the vocabulary, skills and concepts? <i>Reminder: Did I include how I will model the skills, strategies and activities? Modeling (Show Me)- The teacher demonstrates the skills, strategies and activities for students related to the objective.</i>	Review Lesson 2.1-2.7	Chapter Test	Refresh and reteach an equation; an equal sign connects to expressions. Take a yard stick and balance it on my hand and finger. Ask what would happen if I placed weights on one side. What is needed to rebalance the stick? Explain that this is a representation of how equations are solved. When we modify one side of the equation we must do the same operation on the other side. Solve an Addition and a Subtraction Equation. Introduce the concepts of Property of Equality.	Review multiplication of fractions. Emphasize that we are not looking for a common denominator, which is a common error with 9 th graders. Introduce the Reciprocal of a integer and fraction. Review properties of zero. Review identity property. Solve a simple equation $2x=10$. Solve a more complex equation $0.5x=10$ and the fraction equivalent. Use positive and negative signs to support the last chapter material.	Word (Real Life) Problems Read, underline units and circle mathematical words and statements. Rewrite & Organize the information. What are we trying to figure out? Do we need to do any conversions? What information is not provided that we might need? (Formulas: area, perimeter, etc.) Translate word statements into operations. Write equations and check. Use mental math, properties of equality and solve. Check your answers.
Guided Practice (What teacher & student will do together) (Follow Me)- The teacher leads the students in applying the skills and strategies. Multiple strategies are used to engage the students. This is where differentiation occurs. <i>Will these activities be effective in helping the students apply the skills and strategies?</i>	Holt Assessment, Review and Chapter Test: Selected Problems 106-109.	Test	Holt Pg 119 Practice & Apply; Selected Problems with Real Numbers (Decimals, Fractions & Integers).	Pg. 127 Holt, Practice & Apply 1 st Column.	More word problems selected from the textbook and workbooks.

Checking for understanding (Must be throughout the lesson) The teacher uses a variety of questioning strategies to determine if students have mastered the skills and if he/she should re-teach and/or enrich. <i>What kinds of questions will help me check for understanding?</i>	·Walk about the room during independent practice.	·Make sure the students understand the questions.	·Watch how students are modeling the equations. ·Question students about the problems they are solving. ·Question students about the rules/properties/definitions as they apply.	·Watch how students are modeling the equations. ·Question students about the problems they are solving. ·Question students about the rules/properties/definitions as they apply.	Make sure the students are underlining the correct words and statements.
Differentiation/ Accommodations Small group instruction objective			·Create a T-Chart and undo the operation of Addition or Subtraction. ·Model Solving Equations with Cups & Cubes	Create a T-Chart and undo the operation of Multiplication or Division. ·Model Solving Equations with Cups & Cubes	Create a T-Chart and undo the operation of (+, -, *, /). ·Model Solving Equations with Cups & Cubes1111
Independent Practice (What student do independently/Activity) The teacher releases students to practice the skills and/or demonstrate what they have learned. <i>Will these independent activities be effective in helping the students apply the skills and strategies?</i>	Holt Assessment, Review and Chapter Test: Selected Problems 106-109.		·Holt Pg 119 Practice & Apply; Selected Problems with Real Numbers (Decimals, Fractions & Integers).	·Pg. 127 Holt, Practice & Apply #22-52 3 rd Column.	·More word problems selected from the textbook and workbooks.
Closure- The teacher sums up the lesson and makes connections to the objective. Rigorous and relevant homework is assigned that allows students to practice	These problems will be similar to the test problems. If you felt you had difficulty made sure you review all the classroom notes. Also you can check the website for additional video tutorials.	Tomorrow we will begin using the tools we learned so far in the next chapter.	Last chapter we worked with expressions, this chapter we are working primarily with equations. However an equation consists of two expressions connected with an equal sign. It is	·Provide them with a visualization of a see-saw with two persons balancing it. Add a tall person to one side, then add two or more children to the other side until its balanced.	Word problems and application are the reasons we do algebra. It is important that we understand what the questions are asking and what questions to ask ourselves. With practice

the skill/strategy independently. <i>Does my closing activity check for understanding and relate to the objective?</i>			important to differentiate the two. I will continue to distinguish the two.		you will become proficient and with all our new tools you will be able to solve more complex problems in the future.
Exit Ticket (PSSA Related Activity/Open ended-question)	How can you use AV in your- daily life?		Translate & solve: A number plus 3 is equal to 10.	How important is knowing the multiplication tables for solving these types of equations?	What is the difference between "is less than" and "less than"? Give Example.
HOMEWORK Is my homework rigorous and relevant?	Pg. 86-87 #14-21, ODD		Holt Pg 119 #19-61 1 st Column	Pg. 127 #20-47 1 st Column	Review Notes
Assessment (s) (Must NOT take the entire period)					Literacy Initiative Worksheet

Attachments:

•<http://rosta1g1.wikispaces.com/>

(Provide Documents as to cite evidence of preparation)